REMARKS

The present invention relates to the replication of a smart large object database from a primary server to a secondary server with consistency whereby the database can be read from the secondary server with assurance that the database is totally consistent with the database on the primary server.

The prior art that was used by the examiner in the rejection of all of the claims (except claims 7, 14 and 20) comprise a patent to Bruso et al (hereafter referred to as 'Bruso') combined with a patent to Holenstein et al (hereafter referred to as Holenstein). The examiner recognizes that neither of the patents standing alone could support a prior art rejection of the claims (with the exception of claim 14). The Bruso patent relates to one specific implementation of BLOB. Applicant readily admits that there multiple ways in which BLOBS can be implemented, and is not claiming BLOB implementation. The efficiency of performing operations on BLOBs depends upon factors such as cache size and accessibility. Significantly, however, Bruso does <u>not</u> deal with the replication of BLOBs from a primary server to a secondary server.

On the other hand, Holenstein does discuss replication from a primary server (or source) to a secondary server (or target server). This publication is directed at improvements in synchronization in a database replication system. These improvements are achieved by using a plurality of nodes, each with a database and an audit trail that records all transactions posted to the database. However, unlike applicant's invention, the replicated data of Holenstein can be inconsistent (see, for instance, paragraph 0017 on page 7 which states "Some of the schemes described in the present invention may violate the constraint for brief periods during loading (i.e. referential integrity may be briefly violated)." Thus, this reference must deal with the inconsistencies if the replicated data on the target server is to be the same as the data on the primary server. When reading from the target server, the user has no assurances that the data accurately corresponds to the data on the primary server. Also, Holenstein does not specifically refer to the replication of smart large objects such as smart binary large objects and smart character large objects.

Turning now to the first rejection, the examiner has rejected claim 14 under §102 as being anticipated by the Holenstein patent publication. As filed, this claim is

distinguishable over the reference in at least three significant respects. In the first place, the claim relates to high availability data replication, a feature with which Holenstein does not deal. Secondly, applicant deals with BLOBs and CLOBs, which are two types of data that Holenstein does not address or even consider. Yet, page 8, lines 9 and 10 of applicant's specification states: "Smart large objects are stored and accessed in a different manner from other database content." Because the two inventions appear to have been made by applicant and Holenstein somewhat concurrently, certainly the reference would have addressed these 'smart large objects' if it were capable of handling such objects. Thirdly, applicant's replay of log entries on the secondary server without locking the objects is nowhere suggested by the reference. Furthermore, applicant has now amended claim 14 to further distinguish over the reference by specifying that the transfer of data is conducted while insuring data consistency on the server. Accordingly, applicant respectfully submits that the anticipation rejection of claim 14 is not supportable and should be withdrawn.

Claim 1 has now been amended to incorporate the teachings of claim 8 relating to the consistency between the log entries on the primary and the secondary servers. It has also been amended to cover the fact that a modifying transaction is initiated on the secondary server without locking the smart large object on the secondary server. Neither of these features is described in Bruso or in Holenstein. Accordingly, claim 1 is not rendered obvious by these combined teachings. In fact, it can only be rendered obvious with the help of hindsight based upon applicant's own disclosure. Thus, it is well recognized that a rejection on this basis is improper and not supportable. "To imbue one of ordinary skill in the art with knowledge of the invention...when no prior art reference or references of record convey or suggest that knowledge is to fall victim to the insidious effect of a hindsight syndrome wherein that which only the inventor taught is used against its teacher." W. L. Gore & Associates, Inc. v Garlock Inc., 721 F.2d 1540, 1553; 220 USPQ 303, 312-313 (Fed. Cir 1983). Accordingly, claim 1 should be allowed and, along with it, dependent claims 2-6 and 9-10. Also, the rejection of dependent claim 7 is no longer applicable, and should be withdrawn.

Turning now to the prior art obviousness rejection of claim 11, applicant respectfully submits that this rejection should be withdrawn. This claim describes features of the secondary server that synchronizes it with the primary server to ensure consistency

of data on the secondary server. Again, as acknowledged by the examiner, Bruso does not discuss replication of data on a secondary server. Instead, the portion of Bruso that is quoted by the examiner at the top of page 12 of the office action is not relevant to applicant's claimed invention of replicating smart large object data from a primary to a secondary server without compromising the integrity of the replicated data. Notwithstanding the examiner's contention that the modification of the teaching of Holenstein by Bruso would have been obvious to one of ordinary skill in the art, applicant respectfully submits that combining the teachings of these two patents in such a manner as to replicate the present invention would only be possible to one skilled in the art if the person had applicant's teachings to use as a template for detailed guidance. As previously noted, an obviousness rejection based upon this kind of hindsight is impermissible. Accordingly, the rejection of claim 11 should be withdrawn, and the claim allowed. Consistent therewith, claims 12 and 13 that depend from claim 11 should be allowed as well.

Based on the distinctions between the cited and applied patent references and the present invention, it is clear that claims 1-13 and 15-20 (as now amended) are not rendered obvious by their teachings. Accordingly, applicant respectfully requests that the rejections of these claims be withdrawn. Applicants respectfully submit that the examiner has chosen only selected portions of Bruso, Holenstein and Dinh to support the obviousness rejections, while overlooking selected passages of these same references that lead to a contrary conclusion. In the case of In re Wesslau, 353 F. 2d 238 (CCPA 1965), the court held:

> "It is impermissible within the framework of section 103 to pick and choose from any one reference only so much of it as will support a given position, to the exclusion of other parts necessary to the full appreciation of what such reference fairly suggests to one of ordinary skill in the art." (emphasis original)

Similarly, in Bausch & Lomb, Inc. v. Barnes-Hind/Hydrocurve, Inc. et al, 796 F.2d 443, 230 U.S.P.Q 416 (Fed. Cir. 1986), the court held: "The ... court failed to consider the Caddell reference in its entirety and thereby ignored the portions of the reference that argued against obviousness. (citations omitted)"

Thus, it is clear that when references are used in a §103 rejection, they must be used in their entirety. One may not pick and choose from a given reference only those
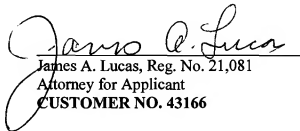
portions which support an espoused position, and ignore those portions which do not support that position.

Claim 21 has been added to cover a feature that depends from claim 1 pertaining to the sharing of workspace in the primary server with the secondary server. This claim, along with claim 1, should be allowable.

Earl et al and Lambert are considered to merely be additive of the applied references, and do not need to be discussed.

Respectfully submitted,

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